UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 2

DATE:

SUBJECT: Approval of the Remedial Action Report for Plattsburgh AFB Site FT-002 Source OU
Clinton County, New York

FROM: Doug Pocze, Chief
Federal Facility Section

TO: Michael Sivak, Acting Chief
Special Projects Branch

Attached for your approval is a copy of the Remedial Action Report for Plattsburgh AFB Site FT-002 Source OU.

Please denote your approval of the subject document by signing below.

Attachment

Approved:

Michael Sivak. 7-18-16

Michael Sivak, Acting Chief
Special Projects Branch

Date

436254

Final Remedial Action Report
Former Plattsburgh AFB – Site FT-002 Source OU
Clinton County, New York

Purpose:

The purpose of this report is to document the completion of the selected remedy for the Site FT-002 Source OU at the Former Plattsburgh AFB, Clinton County, New York.

Site Description:

The Former Plattsburgh AFB, located in Clinton County in northeastern New York State, is bordered on the north by the City of Plattsburgh, the south by the Salmon River, on the west by Interstate 87, and on the east by Lake Champlain. The base is approximately 26 miles south of the Canadian border and 167 miles north of Albany. Lands to the east, west, and south of the base are predominantly rural and residential.

The 3,440-acre base was closed on September 30, 1995 in the third round of base closures mandated under the Defense Base Closure and Realignment Act of 1993. Its reuse is being administered by PARC, which is responsible for maintaining base property, marketing and controlling base reuse, leasing and managing property, and developing base facilities, as necessary, to promote advantageous reuse. According to land use plans, the planned reuse of the FT-002 Source OU area and the area surrounding the site is industrial (open space and aviation support).

The former Fire Training Area is about 8 acres in size and is located in the northwest portion of the base along Perimeter Road about 500 feet east of the former base boundary and 500 feet west of the runway. The area is open and grass covered, and when in operation, consisted of four fire training pits (sand and gravel depressions), each 50 to 100 feet in diameter. The pits were initially unlined, but in 1980 pits 2 and 3 were lined with cement-stabilized soil, and pits 1 and 4 were deactivated. Several landfills and a small arms range previously utilized by the base lie in close proximity to the site.

Plattsburgh AFB History:

The former base served as a tactical wing in the Air Force Strategic Air Command from 1955 to 1991, when it was reassigned as an Air Refueling Wing under the Air Mobility Command. From 1955 to 1995, hazardous wastes were generated from activities including aircraft operation, testing and maintenance, firefighting exercises, the discharge of munitions, and landfill operations.

As part of its Installation Restoration Program (IRP - the CERCLA program administered by the Air Force), and the Base Realignment and Closure (BRAC) Program, the Air Force has initiated activities to identify, evaluate, and restore identified hazardous material disposal and spill areas. The IRP at Plattsburgh AFB is being implemented according to a Federal Facilities Agreement (Docket No.: II-CERCLA-FFA-10201) signed by the Air Force, USEPA, and NYSDEC on July 10, 1991. Plattsburgh AFB was placed on the National Priorities List on November 21, 1989.

FT-002 Source OU – Investigation History and Results:

The fire training pits at site FT-002 were utilized from 1959 until they were closed in 1989. During training exercises, base firefighters and local municipal firefighters saturated the pits with water, and then poured off-specification jet fuel mixed with waste solvents and oil into the pits, and ignited the mixture. Contamination at the FT-002 Site, which resulted from the leaching of unburned jet fuel and solvents through site soils, consisted of the following: 1) free product (primarily fuel) which was floating on groundwater below the ground surface; 2) soil contamination above the water table (i.e., in the vadose zone) which was mainly confined to the area of the four former pits; 3) residual product adhering to soil in the zone of water table fluctuation (i.e., smear zone) which resulted from the horizontal and vertical movement of product in the subsurface; and 4) groundwater contamination which resulted from product and soil contamination. The first three elements of contamination are included in the Source OU. The fourth element, contaminated groundwater, is being addressed under the FT-002 / Industrial Area Groundwater OU. Compounds detected in subsurface soils at FT-002 at the highest levels include 1,2-dichloroethene, trichloroethene, toluene, ethylbenzene, total xylenes, 1,2-dichlorobenzene, and naphthalene. Soil located at the surface of the site did not require remediation to protect human health and the environment. Potential soil vapor intrusion into buildings is also being addressed by remedial actions that are part of the FT-002/IA Groundwater OU.

Several investigations were conducted at the site between 1984 and 2000 to investigate the nature and extent of contamination in soil and groundwater.

Record of Decision for the FT-002 Source OU:

On March 30, 2001 EPA signed a Record of Decision written by the Air Force for the FT-002 Source OU. The remedial objectives for the Source OU were as follows:

1. Remediation of contaminated soil and residual product located in the vadose zone and in the zone of water table fluctuation (smear zone) at the site to concentrations less than or equal to remediation goals set for the site to address the impact of this contamination on groundwater; and

2. Recover floating free (pumpable) product at the site to the extent practicable.

The soil remediation goals set for the FT-002 Source OU were as follows:

- Acetone: 0.198 mg/kg
- Benzene: 0.036 mg/kg
- 1,2-Dichloroethene: 0.18 mg/kg
- 1,2-Dichlorobenzene: 4.74 mg/kg
- l,3-Dichlorobenzene: 0.9 mg/kg
- 1,4-Dichlorobenzene: 5.1 mg/kg
- 2-Methylnaphthalene: 18.2 mg/kg
- 4-Methyl-2-Pentanone: 0.6 mg/kg
- Ethylbenzene: 3.3 mg/kg
- bis(2-ethylhexyl)phthalate: 217.5 mg/kg
- Naphthalene: 6.5 mg/kg
- Tetrachloroethene: 0.84 mg/kg
- Toluene: 0.9 mg/kg

- Trichloroethene: 0.42 mg/kg
- Xylenes: 0.72 mg/kg

*All goals listed above developed by NYSDEC Technology Section, Bureau of Program Management for the protection of groundwater resources, 2001.

The ROD called for the upgrade and expansion of the existing technological components of two previous removal actions. The remedy included soil vapor extraction (SVE) at Pit 1 with treatment of the extracted air by catalytic oxidation, bioventing of contaminated site soils, free product collection, water table depression enabling remediation of residual product adhering to soil below the water table, hydraulic containment of the remaining source, institutional controls, progress monitoring and sampling, and five-year site reviews. Contaminated groundwater at the site is being addressed under the FT-002 / Industrial Area Groundwater OU.

The remedial systems consisted of the following:

- Nine free product recovery wells outfitted with active floating product skimmers and pneumatic bladder pumps. Extracted product was conveyed to above ground product storage tanks located in a building at the south end of the site;
- 14 groundwater recovery wells outfitted with electric submersible pumps. Extracted groundwater was conveyed to a water treatment system located at the south end of the site;
- 14 soil vapor extraction (SVE) wells capable of operating in either SVE or bioventing mode. A catalytic oxidizer (CATOX) was used to treat extracted soil gas prior to discharge to the atmosphere;
- 14 bioventing wells capable of operation in either SVE or bioventing mode and 12 bioventing wells. Two blowers were used, with one blower serving the SVE wells and the other serving the bioventing wells;
- Groundwater treatment system. An 80 gallon per minute (gpm) water treatment system that included flow equalization, a clarifier, air stripper, sand filter, carbon adsorption vessels, sludge settling tanks, and sludge filter press. Treated water was discharged to a permitted outfall (CERCLA IRM 001) located on an unnamed stream at the former weapons storage area; and
- Programmable logic controller (PLC). Controls operation of the groundwater submersible pumps and provides monitoring capability for operation of the bioventing and SVE blowers. The groundwater PLC controlled two slave PLCs for the bioventing and SVE blowers.

Remedial Action Design and Construction:

The following is a chronology of remedial construction activities for the FT-002 Source OU free product removal, SVE, bioventing, water table depression, and groundwater treatment facilities that were used clean up the OU 5 contaminated soil:

August 2003: System design completed by URS Inc., and approved by EPA and NYSDEC.
Contract awarded to URS Inc.
December 2003: Construction completed.
December 2003 through January 2004: Operational testing conducted.
January 2004: Continuous system operation commenced.
March 2004: Final inspection completed and system approved.

See attached Remedial Action Completion Report for the FT-002 Source OU dated May 2016. The remedial action objectives described in the FT-002 Source OU ROD have been met. Soil remediation goals specified in the ROD have been achieved and all components of the remedy decommissioned. Approximately 15,000 gallons of free product were removed from the site and disposed. EPA performed a final inspection of the site on June 14, 2016 and found the remedial action to be successfully completed.

Operation and Maintenance:

O & M at the site will continue under the FT-002/IA Groundwater OU and institutional controls remain in place for the site as part of the FT-002/IA Groundwater OU.

Future Actions:

Long-term monitoring of the site conducted from 2001 through 2014 confirmed the reduction of COCs to below remedial action objectives. Therefore, no further action at the FT-002 Source OU is recommended.

Michael Sivak 7-18-16

Michael Sivak, Acting Chief Date
Special Projects Branch